

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appl. No.: 09/739,682
Attorney Docket No.: Q62095

REMARKS

This Amendment, submitted in reply to the Office Action dated July 29, 2004, is believed to be fully responsive to each point of rejection raised therein. Favorable reconsideration on the merits is respectfully requested.

Claims 1-15 remain pending in the application. Claims 1-3, 5-8 and 10-15 have been rejected under 35 U.S.C. § 102 as being anticipated by Ogura (U.S.P. 6,314,198). Claim 4 has been rejected under 35 U.S.C. § 103 as being unpatentable over Ogura and official notice of well-known art. Claim 9 has been rejected under Section 103 as being unpatentable over Ogura in view of Sasanuma (U.S.P. 5,937,087). Applicants propose the following arguments in traversal of the prior art rejections.

Applicant's invention relates to a process and apparatus to provide adequate contrast in shadow and highlight regions appearing in an image. Conventionally known dodging processes for digital photo printers address this problem of contrast reproduction. These processes include analysis of image data obtained from a scanner or other image source. Based on the analysis result, the data becomes compressed or expanded so that the entire density range recorded to a film can be appropriately reproduced by a receiving output device. The present invention expedites the expansion and compression process by preliminarily setting the compression

and/or expansion characteristics and selecting one or more of such set characteristics based on different criteria.

Turning to the cited art, Ogura relates to a medical image process whereby information related to a type of apparatus, shape of image detector, type of image being taken, and other characteristics are used to calculate an appropriate compression factor. For example, a base reference density value BASE is derived from average values Cave, Lave and Rave supplied from a characteristic amount calculating value based on the image data. The reference density becomes calculated according to an equation: $BASE = Cave + (Rave - Cave) \times \alpha$, where α is based on type of output device, and the digital image data. A compression factor definition (R) is provided according to a further equation $R = \{F_{FRO}(BASE) - D_{min}\} / (Base - S_{min})$, where F_{FRO} comprises an adjusted pixel conversion curve, S_{min} is the minimum pixel value and D_{min} is the minimum pixel value after compression, which is set arbitrarily. Col. 36.

The Examiner maintains that Ogura teaches each feature of independent claim 1.

Applicant would submit that the rejection is not supported for the following reasons.

First, claim 1 describes preliminarily setting a plurality of basic compression characteristics or expansion characteristics. The Examiner relies generally on col. 31 of Ogura for teaching this feature. However, the cited column merely describes the actual compression of the dynamic range of the image. The compression purportedly provides an optimum density

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based on type of apparatus, information concerning the photographed portion and type of output device, for example. Though compression is performed based on certain characteristics, there is no disclosure of preliminary setting of the compression information.

Second, the Examiner's rejection indicates that parameters such as the type of apparatus, type of output apparatus and photographing portion are initially set. However, even assuming *arguendo* that these characteristics are preliminarily set, this does not necessitate that any compression characteristics be preliminarily set as claimed. The Examiner's rejection includes an unsupported assumption regarding the teachings of Ogura.

Third, Applicant would also emphasize that col. 36 of Ogura clearly shows a contemporaneous calculation of the compression factor based on values obtained in connection with the image data. In this regard, Applicant would submit that Ogura has the deficiencies of conventionally known devices in requiring significant processing to determine proper compression. By contrast, the method of claim 1 allows preliminary setting of the data and selection of such characteristics which results in more rapid processing. Therefore, claim 1 is patentable for at least the above reasons.

Because independent claims 10-12 also include features similar to that discussed above for claim 1, claims 10-12 are also patentable for at least these reasons. The remaining claims are patentable based on their dependency. With further regard to claim 4, the citation of Official

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Notice does not make up for the deficiency detailed above. Similarly, with regard to claim 9, Sasanuma, which relates to printing of overhead projection slides, also does not make up for the above deficiencies.

The rejection of claims 1-15 are traversed as set forth above. In view of the foregoing, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.


Respectfully submitted,

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